Claims:

1. A carboxypeptidase U (CPU) mutant polypeptide having greater thermal stability than the wild-type polypeptide, which mutant comprises at least one amino acid substitution located at an amino acid residue position relative to SEQ ID NO: 2, selected from the group consisting of: 166, 204, 219, 230, 251, 315 and from within 327 to 357.

2. A carboxypeptidase U (CPU) mutant polypeptide having greater thermal stability than the wild-type polypeptide, which mutant possesses at least two amino acid substitutions, at least one of which is located at an amino acid residue position relative to SEQ ID NO: 2, selected from the group consisting of: 166, 204, 219, 230, 251, 315 and from within 327 to 357.

3. A carboxypeptidase U (CPU) mutant polypeptide according to claim 2, wherein at least one of the amino acid substitutions is located within the amino acid region 327 to 357 inclusive, according to the position in SEQ ID NO: 2.

4. A carboxypeptidase U (CPU) mutant polypeptide with an amino acid substitution at one or other of positions S327, H355 or H357, relative to SEQ ID NO: 2, optionally, in combination with at least one other amino acid substitution.

5. The CPU mutant as claimed in claim 4, wherein two of the substitutions are at positions selected from: S327, H355 and H357.

6. A CPU mutant polypeptide as claimed in claim 1, wherein there are at least 2 substitutions.

7. A CPU mutant polypeptide as claimed in claim 1, wherein there are at least 3 substitutions.

8. A CPU mutant polypeptide according to claim 1, which is a human polypeptide.

9. A CPU mutant polypeptide according to claim 1, which is a mouse or rat polypeptide.

10. A CPU mutant polypeptide according to claim 1, 2 or 8, wherein at least one of the substitutions is selected from the group consisting of: K166N, I204T, V219A, Y230C, I251T, H315R, S327C, K346, S348N, K349, N350S, R352K, H355Y, H357P and H357Q.

11. A CPU mutant polypeptide having greater thermal stability than the wild-type polypeptide, which mutant possesses an amino acid substitution at each of positions: S327, H355 and H357, relative to SEQ ID NO:2.

12. A CPU mutant polypeptide according to claim 1, comprising the sequence in SEQ ID NO: 17.

13. A CPU mutant polypeptide according to claim 1, comprising the sequence in SEQ ID NO: 18.

14. A CPU mutant polypeptide according to claim 1, comprising the sequence in SEQ ID NO: 19.

15. A nucleic acid molecule encoding a polypeptide according to any of claims 1-14.

16. A nucleic acid molecule encoding a polypeptide according to any of claims 1-14 and a CPU prepro sequence.

17. A vector comprising a nucleic acid according to any of claims 1 to 16.

18. A host cell comprising the nucleic acid according to any of claims 1 to 17.

19. A host cell according to claim 18, which is a mammalian, bacterial, yeast or insect cell.

20. A method of producing a CPU mutant polypeptide according to any of claims 1 to 14, comprising cultivating a cell according to claim 18 or 19, under conditions suitable to allow expression of the polypeptide and isolating the CPU mutant polypeptide produced.

21. A purified antibody, capable of selectively binding to a CPU mutant polypeptide according to any one of claims 1 to 14.

22. The use of a CPU mutant polypeptide according to any one of claims 1 to 14, in the manufacture of a medicament.

23. Use of a polypeptide according to any one of claims 1 to 14, in the treatment of a patient suffering from systemic bleeding.

24. Use of a polypeptide according to any one of claims 1 to 14, as an antidote to systemic bleeding caused by anti coagulation therapy.

25. A pharmaceutical composition comprising a therapeutically effective amount of the mutant CPU according to any of claims 1 to 14, and a pharmaceutically effective excipient or diluent.

26. A pharmaceutical composition according to claim 25, for treating, preventing, managing or ameliorating the symptoms of hemorrhagic disease or disorder.

27. A method of treating, preventing, managing or ameliorating the symptoms of hemorrhagic disease or disorder comprising administration of a therapeutically effective amount of a pharmaceutical composition according to claim 25.

28. A method of causing blood to clot comprising contacting the blood with an effective amount of a CPU mutant comprising the amino acid sequence according to SEQ ID NO: 2, but with at least two amino acid substitutions, at least one of which is at a position selected from the group consisting of: 166, 204, 219, 230, 251, 315 and from within 327 to 357.

29. The use of a CPU mutant polypeptide according to any one of claims 1 to 14, in the formation of crystals of said CPU mutant.

30. A method of producing a crystal structure of a CPU mutant polypeptide according to any one of claims 1 to 14, comprising allowing the polypeptide produced according to claim

20 to form a complex with a Fab fragment, purifying the complex and treating the purified complex under conditions suitable to allow crystal formation.

31. The method of producing wild-type CPU or proCPU crystals, comprising admixing purified CPU or proCPU polypeptide with a Fab fragment directed to all or part of amino acids from positions 327 to 357 inclusive (according to the position in SEQ ID NO: 2) so as to allow complex formation, purifying the complex and treating the purified complex under conditions suitable to allow crystal formation.

32. A crystal of a mutant CPU polypeptide according to any one of claims 1 to 14.